Chapter 7 Test Review

Write the letter for the correct answer in the blank at the right of each question.

1. There are 15 plums and 9 apples in a fruit bowl. Find the ratio of apples to plums. 1. _____

   A. 3:5 **B.** 3:8 **C.** 5:3 **D.** 8:3

2. The scale drawing of a porch is 8 inches wide by 12 inches long. If the actual porch is 12 feet wide, find the length of the porch. 2. _____

   A. 8 ft **B.** 10 ft **C.** 16 ft **D.** 18 ft

3. Solve $\frac{5}{6} = \frac{4}{x}$. 3. _____

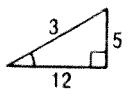
   A. 4.6 **B.** 4.8 **C.** 5 **D.** 7

4. A quality control technician checked a sample of 30 bulbs. Two of the bulbs were defective. If the sample was representative, find the number of bulbs expected to be defective in a case of 450. 4. _____

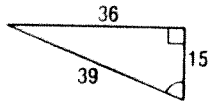
   A. 24 **B.** 30 **C.** 36 **D.** 45

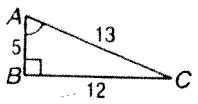
5. Find the triangle similar to $\triangle ABC$ at the right. 5. _____

   A.

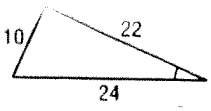
   

   B.

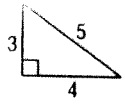
   

   C.

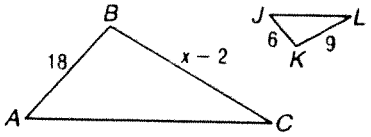
   

   D.

6. Find x if $\triangle ABC \sim \triangle JKL$. 6. _____

   A. 10 **B.** 14 **C.** 25 **D.** 29

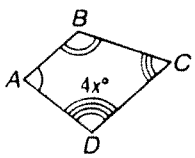
   

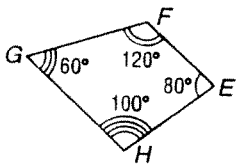
7. Quadrilateral $ABCD \sim$ quadrilateral $PQRS$. If $AB = 10$, $BC = 6$, $PS = 12$, and $QR = 4$, find the scale factor of $ABCD$ to $PQRS$. 7. _____

   A. $\frac{1}{2}$ **B.** $\frac{3}{2}$ **C.** $\frac{5}{3}$ **D.** $\frac{5}{6}$

8. If quadrilateral $ABCD \sim$ quadrilateral $EFGH$, find x. 8. _____

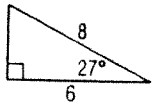
   A. 15 **B.** 20 **C.** 25 **D.** 30

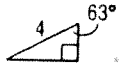
   

9. Which theorem or postulate can be used to prove that these two triangles are similar? 9. _____

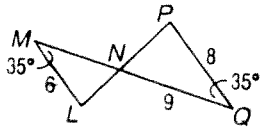
   A. AA **B.** SAS **C.** SSA **D.** SSS

10. Find MN. 10. _____

    A. $5\frac{1}{3}$ **B.** $6\frac{3}{4}$ **C.** 7 **D.** 12

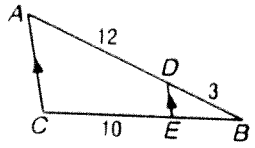
    

Assessments

11. A 5-foot tall student cast a 4-foot shadow. If the tree next to her cast a 44-foot shadow, what is the height of the tree? 11. _____

A. $35\frac{1}{5}$ ft B. 45 ft C. $51\frac{1}{2}$ ft D. 55 ft

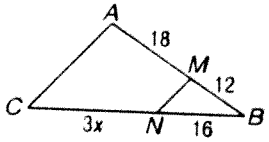
12. In $\triangle ABC$, $\overline{DE} \parallel \overline{AC}$. If $AD = 12$, $BD = 3$, and $CE = 10$, find BE. 12. _____



A. 1 B. $1\frac{1}{2}$

C. 2 D. $2\frac{1}{2}$

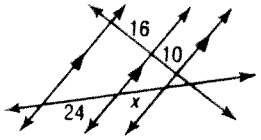
13. Find x so that $\overline{AC} \parallel \overline{MN}$ in $\triangle ABC$. 13. _____



A. 8 B. 10

C. 25 D. 29

14. Find x. 14. _____



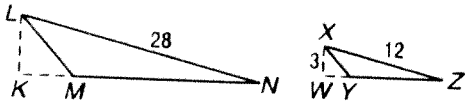
A. 14 B. 15

C. 16 D. 18

15. If $\triangle FGH \sim \triangle PQR$, $FG = 6$, $PQ = 10$, and the perimeter of $\triangle PQR$ is 35, find the perimeter of $\triangle FGH$. 15. _____

A. 21 B. 27 C. 31 D. $58\frac{1}{3}$

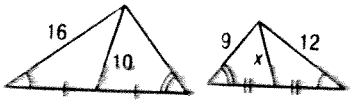
16. $\triangle LMN \sim \triangle XYZ$ with altitudes $\overline{KL}$ and $\overline{WX}$. Find KL. 16. _____



A. 6 B. 7

C. 9 D. 19

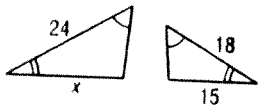
17. Find x. 17. _____



A. 5 B. 6

C. $6\frac{1}{2}$ D. $7\frac{1}{2}$

18. Find x. 18. _____



A. 16 B. 18

C. 20 D. 21